COMPANY: Li-Cycle Holdings Corp. | NYSE: LICY
INDUSTRY: Battery Recycling SPAC

PRICE (AS OF CLOSE 3/23/2022)
USD 8.40
MARKET CAP
USD 1.42 BN

We are short Li-Cycle Holdings Corp. ("Li-Cycle" or the "Company"), a battery recycling SPAC trading at 96.8x LTM revenues on the promise of a low cost, low capital expenditure recycling model. But such promise is a fiction. In our opinion, Li-Cycle is a near fatal combination of stock promotion, laughable governance, a broken business hemorrhaging cash, and highly questionable Enron-like accounting.

In our opinion, Li-Cycle recognizes revenues using an Enron-like mark-to-model accounting gimmick. Li-Cycle recognizes revenues months prior to the actual sales of its recycled black mass, based on its own provisional estimate of the future value of the product. This accounting treatment is plainly vulnerable to abuse, giving Li-Cycle discretion over its reported revenues. We suspect that under this framework, Li-Cycle marks up the value of its receivables on unsold products and runs the gains through its revenue line. In the most recent quarter, we calculate that **45% of Li-Cycle's revenues** were derived from simply marking up receivables on products that had not been sold. We suspect that such questionable accounting could explain why Li-Cycle's **CFO and auditor resigned** in January 2022, mere months after the Company went public.

Even by SPAC standards, Li-Cycle is a governance nightmare. Its founder is a serial penny stock promoter recently sanctioned by Canadian authorities and its management team diverted half a million in shareholder money to enrich their entourage with wasteful spending, including **tens of thousands of dollars on leather goods purchased from the CEO's family**. Li-Cycle's cash burn is so severe and far above previous guidance that analysts have already downgraded the stock and told the market to expect Li-Cycle to raise at least $1 billion through debt and dilutive equity issuances. By our calculation, Li-Cycle's stated capital investments will require the Company to raise at least $1 billion – **102% of its current enterprise value** – in large part by massively diluting current shareholders. We think Li-Cycle, which currently trades at 96.8x LTM revenues, will be another trash SPAC to fall into ignominy and failure.

1. **Chairman a Serial Penny Stock Promoter Recently Sanctioned by Canadian Regulators**. Li-Cycle's co-founder and chairman, Tim Johnston, is a serial penny stock promotor who was recently banned by the TSX Venture exchange from acting as a director or officer of any TSXV-listed company without prior approval due to misconduct as president and CEO of Desert Lion Energy (DLI.CN). Johnston was sanctioned for failing to disclose key terms of a discounted financing he arranged for the junior miner. The British Columbia Securities Commission recently upheld the punishment. Undeterred, Johnston listed another lithium hype story on a junior Canadian exchange, which is down 62% from its highs and already admitted to overstating its cash balance.

2. **Half a Million in Investor Money Diverted to Family Entourage.** Despite a business that is hemorrhaging cash, and which will require multiple near-term cash infusions, Li-Cycle diverted $529,902 in investor capital to the family entourage of its founders through a series of highly questionable related party payments. These payments include, $85,824 to a leather goods maker owned by the CEO's family which makes wallets, toiletry bags and beer holsters. Li-Cycle also paid C$4,500 per month to lease part of a C$312,000 office from the CEO's family, paid hundreds of thousands of dollars to a corporate video production company owned by the chairman's brother and paid over $170,000 to a family owned "technology service" with three employees in India.

3. **Li-Cycle's Revenues are based on Enron-esque Mark-to-Model Accounting**. Li-Cycle claims to sell 100% of its recycled black mass to an investor, Traxys, and recognizes revenues immediately upon delivery. But Traxys is **not really a customer**, it is merely a broker providing working capital financing to Li-Cycle while Traxys attempts to sell Li-Cycle's black mass to end buyers. Traxys is not the end customer, it bears no commodity price risk, and charges Li-Cycle interest on any cash to the Company prior to final sale to the end buyer. Yet Li-Cycle somehow recognizes revenue immediately upon delivery to its brokers, months before any sale occurs. Li-Cycle's revenues are based on its own ***provisional estimate*** of the value of its unsold recycled product.

   In our opinion, Li-Cycle's accounting is reminiscent of Enron – as the Company's revenues are not derived from bona fide sales of recycled product to end customers, but rather Li-Cycle's estimates of the future value of such products. Li-Cycle in effect uses mark-to-model accounting, pulling sales forward from future periods and recognizing revenues based on its self-serving estimates of recycled product shipped to its brokers.

Under this framework, Li-Cycle also bolsters reported revenues by marking up the value of receivables for black mass which sits at its brokers and has yet to be sold. In the most recent quarter, we calculate that **45% of Li-Cycle's revenues** were derived from simply marking up receivables on products that had not been sold. We question whether this highly aggressive accounting treatment caused **Li-Cycle's auditor and CFO to resign**, both of whom abruptly left the Company following the end of the last fiscal year.

4. **Li-Cycle Requires $1 Billion in Near Term Capital**. Following the Company's de-SPAC, Li-Cycle's costs and anticipated capital expenditures have ballooned. Morgan Stanley estimated in a recent note downgrading the stock that cost and capital expense overruns increased its estimate of Li-Cycle's free cash flow burn (2022-2026) from $643 million to ~$1.85 billion, a **3x increase**. Analysts estimate that Li-Cycle burns cash so much more rapidly than it initially told investors, that the Company will need to raise $1 billion in additional capital through debt and dilutive equity issuances.

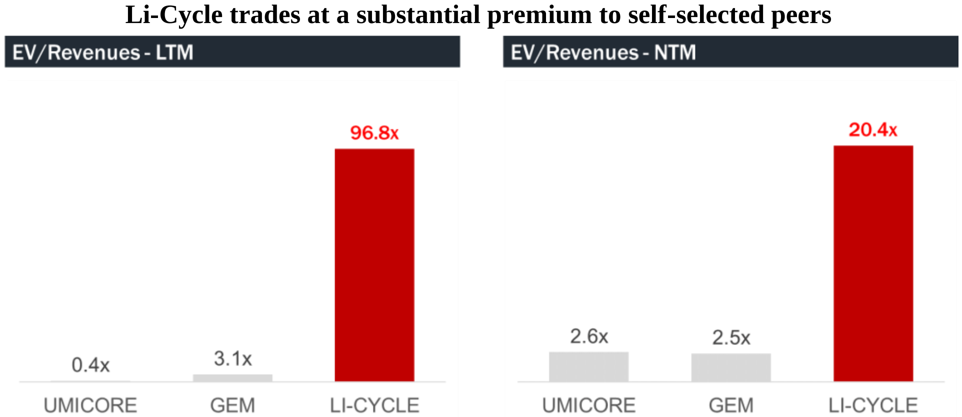
   We agree. By our calculation, Li-Cycle's proposed capital investments will require the Company to raise at least $1 billion – **102% of its current enterprise value** – in part by diluting existing shareholders. This is fatal to the bull case for the stock: even if investors ignore Li-Cycle's nightmarish corporate governance, questionable accounting, and negative margins, they will likely be so badly diluted that even if they win, they lose.

5. **Hiding Negative Gross Margins**. Notably for a self-styled 'urban miner,' Li-Cycle does not disclose gross margins on its income statement, instead reporting nebulous expense categories which on the surface, seem to imply an impressive 83% gross margin in the latest quarter. We think this is highly misleading, as the footnotes to the financial statements reveal that Li-Cycle's aggregate inventory costs **exceeded its aggregate revenues since inception**. This suggests that **Li-Cycle likely has negative gross margins**, indicating that its recycling business is neither scalable nor economically viable. Rising commodity prices are unlikely to help, as the cost of Li-Cycle's inputs will simply rise along with commodity prices.

6. **Blood Diamonds and ESG**. Li-Cycle's purported commitment to ESG is central to its narrative, a commitment which we believe is more of a marketing ploy than a guiding tenet. Li-Cycle's advisor, major shareholder and company consultant owned a Tanzanian diamond mine which has been accused of appalling human rights abuses. We question how ESG investors will feel about the ESG credentials of a company with close ties to a group accused of profiting from blood diamonds.

To grasp the absurdity of Li-Cycle's current share price, consider Li-Cycle's self-selected peers: battery recyclers Umicore (ENXTBR: UMI), based in Belgium, and GEM (CH: 002340), based in China. Unlike Li-Cycle, both comps have generated profits for years.[1] Umicore and GEM currently trade at 0.4x and 3.1x EV/LTM revenue, respectively. Yet Li-Cycle, trades at 96.8x EV/LTM revenue.

Li-Cycle trades at a substantial premium to self-selected peers



Source: Capital IQ (as of March 23, 2022)

In our opinion, Li-Cycle is a fatal combination of SPAC trash, stock promotion, awful corporate governance, faulty accounting, and a broken business model which is not economically viable.

[1] Li-Cycle reported a profit of $28 million in Q1FY22. However, this was solely attributable to a $51 million gain on financial instrument liabilities driven by their depressed share price. The Company has not recorded positive net income in any other periods.

1. Chairman is a Serial Penny Stock Promoter Sanctioned by Canadian Regulators

Li-Cycle's co-founder and chairman, Tim Johnston, is a serial penny stock promotor who was recently banned by the TSX Venture exchange ("TSXV") from acting as a director or officer in any TSXV-listed company without prior approval due to misconduct as president and CEO of Desert Lion Energy ("Desert Lion").

BRITISH COLUMBIA SECURITIES COMMISSION
Securities Act, RSBC 1996, c. 418

Citation: Re Johnston, 2021 BCSECCOM 79 Date: 20210219

In the Matter of Tim Johnston and a
Decision of the TSX Venture Exchange Inc. dated May 11, 2020

Source: https://www.bcsc.bc.ca/-/media/PWS/New-Resources/Decision-and-Orders/Decisions/2021/2021-BCSECCOM-79.pdf

Desert Lion, which claimed to be building Namibia's first large-scale lithium mine, went public on the TSX Venture Exchange through a reverse merger in February 2018. On that day, Desert Lion's shares were traded at C$ 2.0. Within 18 months, its **share price plummeted to C$ 0.10**, before it was acquired by Lepidico (ASX: LPD).

In Desert Lion's short and unhappy tenure as a public company, Johnston managed to draw regulatory ire. Shortly after its listing on the TSXV, Desert Lion faced bankruptcy. Johnston, as CEO, initiated a private financing of C$ 5 million in convertible notes, but the notes were discounted by C$ 1 million and contained default covenants. Desert Lion **failed to disclose the discount and the covenant** to both investors and the exchange, even after multiple requests by the exchange to update disclosures. Amusingly, Johnston, a CFA charter holder, blamed the complexity of convertible notes for the error.

d) Mr. Johnston blamed the "inherent complexity of convertible securities" for what he described as a misunderstanding between Desert Lion and the Exchange.

Source: https://www.bcsc.bc.ca/-/media/PWS/New-Resources/Decision-and-Orders/Decisions/2021/2021-BCSECCOM-79.pdf

Unpersuaded by such nonsensical excuses, the exchange banned Johnston from serving as a director or officer of any of TSXV-listed companies without the prior approval of the exchange and informed consent of such companies.

[53] Our characterization of the Decision is as follows:

a) The Exchange found that Desert Lion had materially breached fundamental Exchange requirements;

b) The Exchange found that Mr. Johnston had a duty to ensure that Desert Lion complied with Exchange requirements;

c) The Exchange considered Mr. Johnston's assertions of reliance on legal advice unsatisfactory and not deserving of any detailed analysis at that stage; and

d) The Exchange imposed conditions on future applications by Mr. Johnston for Exchange approval which would necessitate that Mr. Johnston address the concerns it raised in the Decision with the informed support of whatever listed issuer Mr. Johnston was then applying to join.

Source: https://www.bcsc.bc.ca/-/media/PWS/New-Resources/Decision-and-Orders/Decisions/2021/2021-BCSECCOM-79.pdf

Johnston unsuccessfully sought a reversal of this punishment by the British Columbia Securities Commission, but the regulator upheld the judgment and he remains sanctioned with respect to the TSXV. However, Johnston has continued to promote Lithium stocks under different exchanges.

In 2019, just after bailing from the sinking Desert Lion, Johnston co-founded Li-Metal (CSE: LIM) and took it public on the Canadian Stock Exchange ("CSE") through a reverse merger in October 2021. Because the CSE is a different stock exchange not the TSX Venture exchange, Johnston was able to serve as a director despite his recent Desert Lion sanctions.

In its brief history, Li-Metal also has had its share of faulty disclosures, having recently admitted that it misstated its cash position related to a 2021 financing.

> In its initial news release Li-Metal said its cash equivalent position was approximately $38 million. However, in an update released on December 27, 2021, the company corrected that statement, saying its cash and equivalents position is actually $28 million.

Source: https://resourceworld.com/li-metal-clarifies-financial-position-after-19-5-m-raise/

In its short life as a public company, Li-Metal's stock price has **tumbled 62%** from its high of C$ 3.55 to its current price of C$ 1.35. The absence of investor confidence makes sense given that Li-Metal overstated its cash balance by C$ 10 million in its two short months as a publicly traded company.

In our opinion, Johnston's ignominious history as a penny stock promoter should immediately raise flags regarding Li-Cycle's disclosures and accounting. With a track record of poor management and material omissions to the investing public, Johnston's checkered past only adds to the suspicion regarding Li-Cycle's questionable accounting, its flagrant related party expenses, and its laughable corporate governance.

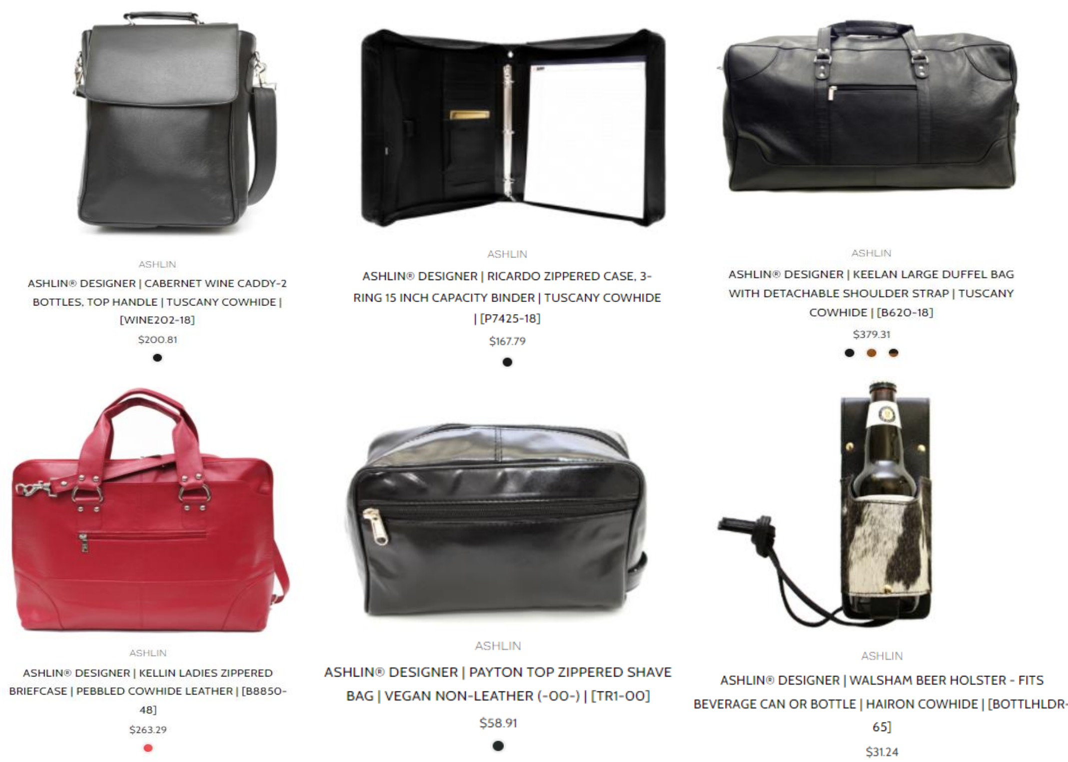
2. Half a Million in Investor Money Diverted to Family Entourage

Despite hemorrhaging cash and likely requiring multiple near-term infusions of capital, Li-Cycle diverted half a million in investor capital to the family entourage of its founders through a series of highly questionable related party payments. Even by SPAC standards, such wasteful spending on the family entourage is laughable for a public company and serves as evidence, in our opinion, of egregious corporate governance.

- **Tens of Thousands of Dollars on Crappy Leather Wallets, Toiletry Cases and Beer Holsters?**

Over the past nine quarters, Li-Cycle paid an aggregate $167,553 to Ashlin BPG Marketing ("Ashlin"), a Canadian leather goods producer run by Ashok Kochhar, a family member of Li-Cycle's president and CEO, Ajay Kochhar. Li-Cycle's CEO even claims to have worked at Ashlin for three years on his LinkedIn.

Li-Cycle spent **$85,824** on "**marketing items and employee gifts**" from Ashlin over the past nine quarters. This is curious, as according to its website, Ashlin sells leather wallets, toiletry cases, bags and cow-hide beer holsters.

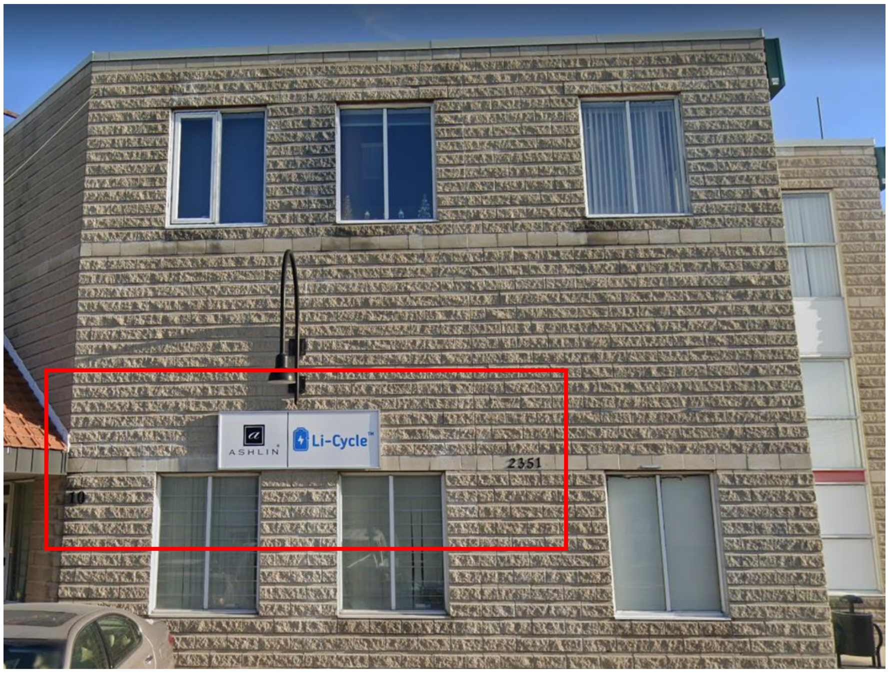


Source: https://ashlinleather.com/

Looking at Ashlin's website, the most expensive item is $379.31. Li-Cycle spent 226x this amount buying employee gifts and marketing trinkets. How can a startup that is hemorrhaging cash and struggling to get the necessary capital to launch its business spend tens of thousands of dollars on cheap wallets and bags?

In our opinion, no example better encapsulates the laughable corporate governance of Li-Cycle and the lack of respect for investor capital.

These are not the only questionable payments to the CEO's family business. Li-Cycle also spent C$4,500 a month to share a lease with Ashlin in Mississauga, Ontario from January 2019 to December 2021.



Source: Google Maps

Local tax records assess the value of the entire unit at only C$312,000, making it especially absurd that Li-Cycle is paying the CEO's family C$4,500 per month to rent for only a portion of the unit.

Although it is difficult to ascertain the square footage of the office, we looked for comparable units in the area and found that one of the units in the **same building** was recently leasing for C$1,200 per month.

Source: https://qdb.ca/property/office-space-for-rent-141658341#

Given that the unit is valued at only C$312,000 by Canadian tax authorities (not to mention comparable office rental prices in Mississauga, Ontario), we think Li-Cycle is likely overpaid for a lease from the CEO and/or his family.

- **Expensive Home Movies**

Not to be outdone in the questionable related party transactions department, Li-Cycle paid a corporate video producer led by Tim Johnston's brother $190,690 over the past nine quarters.

Li-Cycle admitted in its recent annual report that it has engaged Fade In Production ("Fade In") for its corporate video production since 2017.

> The Company has engaged Fade In Production Pty. Ltd., which is controlled by certain members of the immediate family of the Executive Chair of Li-Cycle, to provide it with corporate video production services since 2017. During the twelve months ended October 31, 2021, the Company incurred expenses of $145,851 attributable to this vendor, as compared to $42,739 for the twelve months ended October 31, 2020.

Source: Li-Cycle 20-F FY2021

Fade In appears to be a small studio headed up by Peter Johnston, the brother of Li-Cycle co-founder and executive chairman Tim Johnston.

Fade In mostly produces videos for Li-Cycle. Its official website only lists four videos under the 'Our Work' page, two of which are for Li-Cycle. Although Fade In published more videos on Vimeo and YouTube, many are older. Of the older work, some were corporate videos, but the vast majority were one-off projects or whimsical shorts, like an Amazing Race Australia submission video from 2010.

The only non-Li-Cycle video that Fade In recently produced was a video for Blue Horizon Capital (NYSE: BNE), another one of Johnston's public companies.

Source: https://vimeo.com/fadeinproductions

Still, despite sparse experience, we expect a nine-quarter budget of $190,690 would produce a reasonable work product. In search of the presumably high caliber work product bankrolled by investor capital, we checked Fade In's website, Vimeo, and Youtube alongside Li-Cycle's website and Youtube for any final edit quality Li-Cycle corporate videos that could be attributed to Fade In during the corresponding period.[2] We found a total of seven unique videos that fit this category.

The seven videos which appear to have been filmed over the past nine quarters had a total duration of 18 minutes and 39 seconds, implying a budget of just over $10,000 per edited minute – quite the rate. The market rate for corporate videos varies, but established production companies (links here and here) generally quote $1,000 to $5,000 per finished minute, well below Fade In's rate. We question why Li-Cycle is spending hundreds of thousands of dollars on corporate videos from the chairman's brother.

- **What's the Opposite of McKinsey?**

Li-Cycle disclosed another related party, Consulero, which it hired for ill-defined 'technology services.' Li-Cycle stated that beginning in September 2020, it paid over $170,000 to Consulero for nebulous work over the course of 17 months.

Consulero is a small Canadian company that was incorporated just seven months prior to beginning work with Li-Cycle.

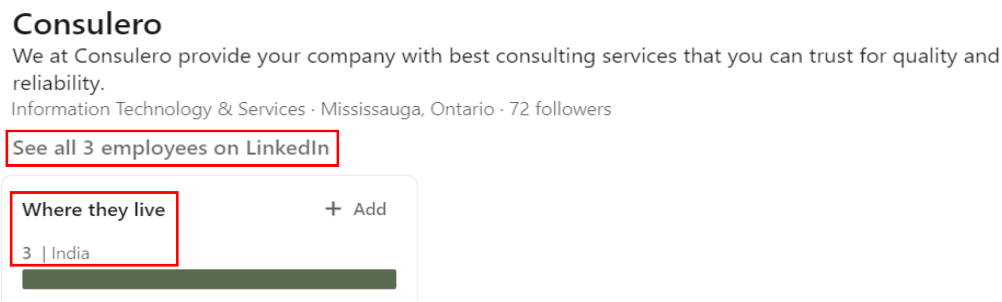
CONSULERO INCORPORATED

Business Number (BN): -
Registry ID: 2742112
Registered Office Location: MISSISSAUGA, Ontario
Status: Active
Status Notes: Incorporated
Business Type: ONTARIO BUSINESS CORP.
Created: 2020-02-11
For the complete profile, go to the official registry source: ServiceOntario

Source: Canada's Business Registries

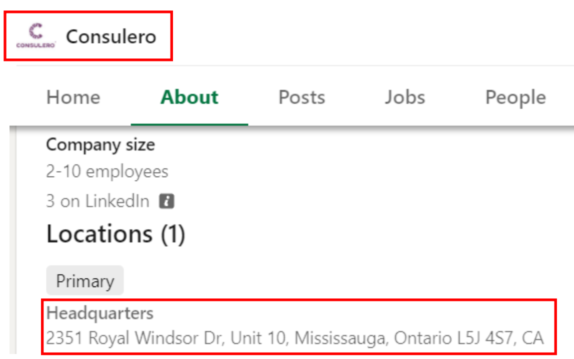
[2] We included only videos that appeared to be significantly edited in our count, we did not count podcasts, webinars or recorded calls.

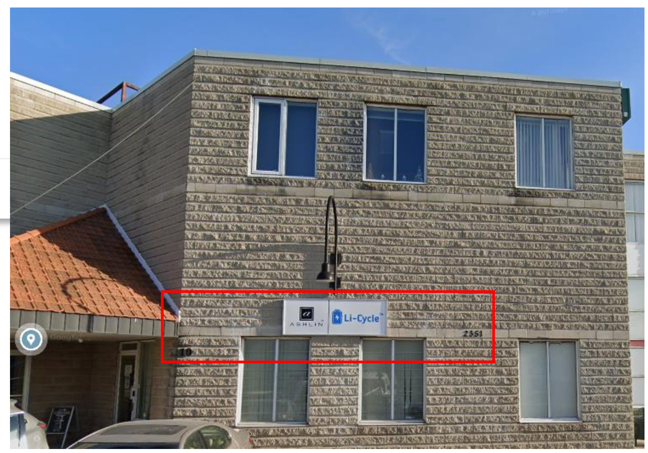
According to its LinkedIn page, Consulero only has three employees in India.


Consulero
We at Consulero provide your company with best consulting services that you can trust for quality and reliability.
Information Technology & Services · Mississauga, Ontario · 72 followers
See all 3 employees on LinkedIn
Where they live
+ Add
3 | India

Source: [Consulero LinkedIn]

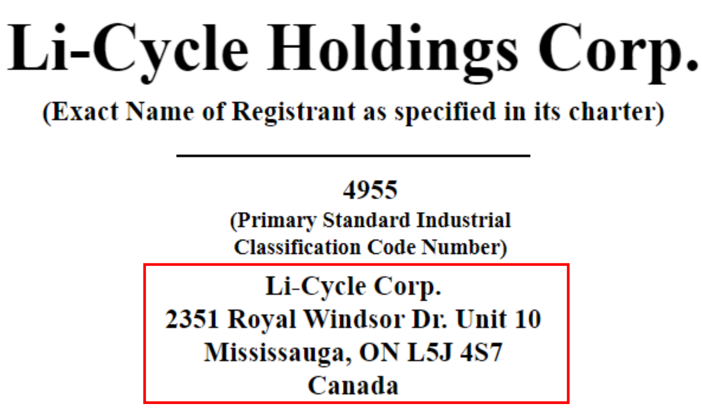
Outsourcing technology services to India should have cost significantly less than $170,000. In addition, Consulero is co-located at 2351 Royal Windsor Dr, Unit 10, Mississauga, Ontario L5J 4S7, CA – the Same property Li-Cycle leases from Ashlin.


Consulero
Home About Posts Jobs People
Company size
2-10 employees
3 on LinkedIn
Locations (1)
Primary
Headquarters
2351 Royal Windsor Dr, Unit 10, Mississauga, Ontario L5J 4S7, CA



Source: [Consulero LinkedIn], [Google Maps]

The address is also the address that Li-Cycle used in its F-1 filing.


Li-Cycle Holdings Corp.
(Exact Name of Registrant as specified in its charter)

4955
(Primary Standard Industrial Classification Code Number)

Li-Cycle Corp.
2351 Royal Windsor Dr. Unit 10
Mississauga, ON L5J 4S7
Canada

Source: [Li-Cycle F-1, September 29, 2021]

It appears from this co-location that Consulero is another related party related to Li-Cycle CEO Ajay Kochhar's family, and another example of management enriching family members with money raised from investors.

Ultimately, the Company has paid $529,902 in cash to the family entourage of its chairman and its CEO through questionable related party payments. Such payments evince laughably poor corporate governance, even by SPAC standards, and in our opinion, a lack of respect for investor capital.

3. Li-Cycle's Revenues are based on Enron-esque Mark-to-Model Accounting

In our opinion, Li-Cycle's accounting is reminiscent of Enron – as a significant portion of the Company's revenues are not derived from bona fide sales of recycled product to end customers, but rather Li-Cycle's provisional *estimates* of the value of such product delivered to its brokers.

Li-Cycle's largest customer, and the foundation for its future revenue projections, is Traxys North America LLC ("Traxys") – a large commodities trader that is also an **investor** in Li-Cycle. The contract with Traxys accounts for not only the majority of Li-Cycle's revenues, but also a substantial portion of Li-Cycle's revenue projections to investors. Yet analyzing the details of the contract, it becomes evident that Traxys is not really a customer, but merely a broker providing working capital financing to the Company while Traxys attempts to sell Li-Cycle's product to end customers. Traxys is not the end customer, it bears no commodity price risk, and charges Li-Cycle interest on any cash advanced to the Company prior to final sale to the end buyer. Yet Li-Cycle somehow recognizes revenue immediately upon delivery to its brokers, potentially months before any sale has occurred.

The Company's revenue is based on its provisional estimate of the value of the black mass delivered to its investor/broker, not the price ultimately paid for the product by the end customer. Li-Cycle in effect uses mark-to-model accounting, pulling sales forward from future periods and recognizing revenues based on its own self-serving estimates. But that is not all, as this mark-to-model accounting framework allows the Company to juice its revenues with non-cash gains on previously recognized revenues.

We calculate that **45% of Li-Cycle's reported revenues** in the last quarter were derived from simply marking up receivables on products that had not been sold.

$	FY20	FY21	Q1FY22
Revenues	792,254	7,374,876	3,837,970
Gain on accounts receivable	0	805,789	1,738,469
Markup as a % revenues	**0%**	**11%**	**45%**

Source: Li-Cycle Consolidated Financial Statements FY 2021, Q1 FY22

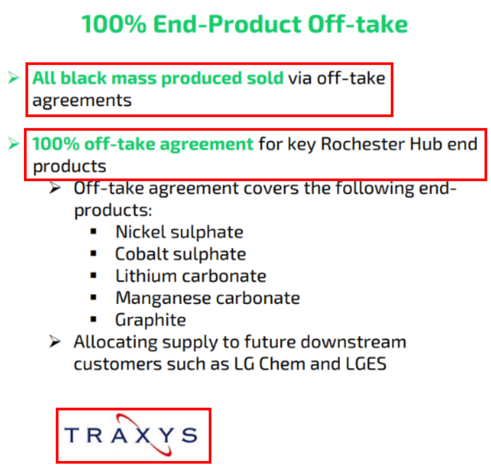
Under Li-Cycle's bizarre mark-to-model accounting framework, it appears that Li-Cycle books these gains straight into their current period revenue, boosting its top line with unrealized gains on prior transactions. We question whether this highly aggressive accounting caused **Li-Cycle's auditor and CFO to resign**, both of whom abruptly left the Company following the end of the last fiscal year.[3]

- **Li-Cycle's Largest Customer Not a Customer?**

Li-Cycle recycles lithium-ion batteries into black mass, which can later be broken down into component materials nickel, cobalt, and small amounts of lithium.

Li-Cycle has disclosed two offtake agreements with Traxys: one for its current production of black mass from its spoke facilities and another for its intended production of various metals from its hub, now under construction using the proceeds of the SPAC. Currently, Li-Cycle only produces black mass and mixed copper and aluminum. The Company claims that 100% of its black mass as well as its future end products from its Rochester, New Jersey hub are to be sold to Traxys.[4]

[3] To be clear, we are not alleging any wrongdoing on the part of Traxys, who is merely the counterparty to the contract.
[4] Mixed copper/aluminum product is one of intermediate products produced at the Spokes. Li-Cycle sells mixed copper/aluminum products to Glencore, an Anglo-Swiss multinational commodity trading and mining company. Li-Cycle sold black mass to Glencore until 2021, when existing commitments were satisfied.



Source: [Li-Cycle Investor Presentation, Q4 FY2021]

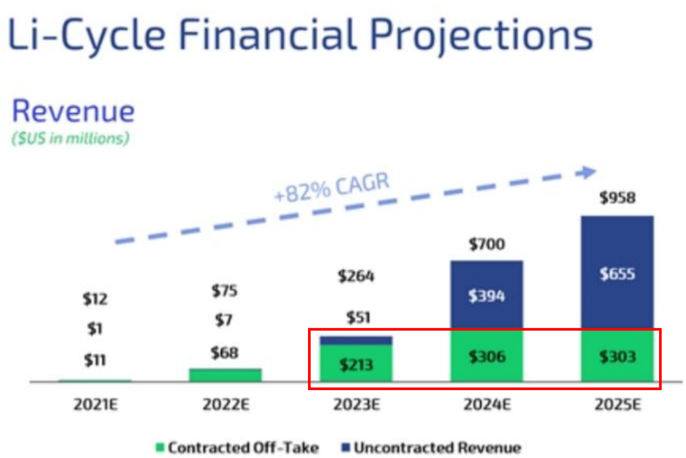
Traxys has contracted to take 100% of the Company's black mass production, making Traxys purportedly Li-Cycle's largest customer. On paper, Li-Cycle supposedly sold $3.8 million of recycled black mass to Traxys in FY 2021.[5]

Notably, the proportion of revenues from Traxys increased dramatically in the last quarter, rising from 28% of total revenues in the first three quarters of FY 2021 to 61% in Q1 FY2022.

$	9MFY21	Q4FY21	FY21	1QFY22
Revenue	2,983,747	4,391,129	7,374,876	3,837,970
Customer A (Glencore)	1,820,086	1,277,362	3,097,448	1,113,011
Contribution %	*61%*	*29%*	*42%*	*29%*
Customer B (Traxys)	835,449	2,999,486	3,834,936	2,341,162
Contribution %	***28%***	***68%***	***52%***	***61%***

Source: [Li-Cycle Consolidated Financial Statements FY 2021, F-1 Filed on November 17, 2021, Q1FY22 Quarterly Report]

Sales to Traxys are not only the largest component of Li-Cycle's current revenues, but also the foundation of Li-Cycle's projections to investors. At the announcement of its SPAC merger, the Company attributed $300 million per year of future revenue to its Traxys agreements. Given that Li-Cycle projects revenues of only $264 million in FY 2023 and $700 million in FY 2024, sales to Traxys are the foundational component of Li-Cycle's future revenue projections.



Source: [Li-Cycle Investor Presentation, February 2021]

[5] Li-Cycle's FYE is October 31.

Li-Cycle reports sales of black mass to Traxys, with revenue recognized upon delivery of the product to Traxys. This seems, at first glance, to be a standard customer relationship with a commodity producer. But dig deeper and any semblance of normalcy unravels.

- **Li-Cycle Sells through Traxys, Not to It**

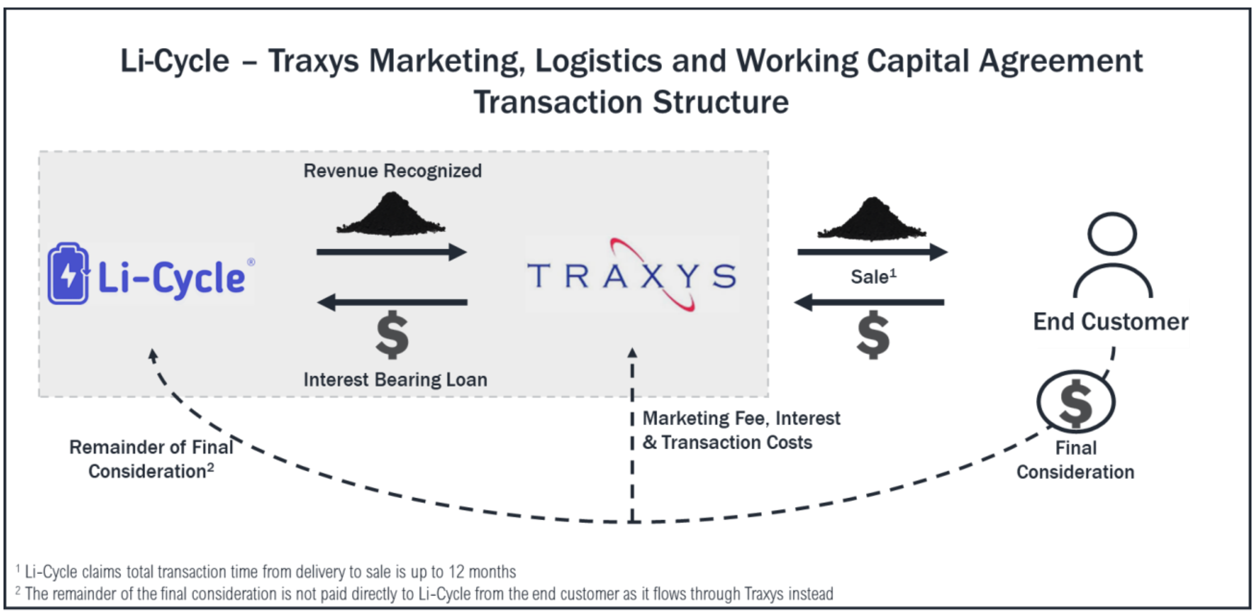
First, it is critical to note that Traxys is **actually not the end customer**, but a broker or marketing partner that on-sells Li-Cycle's black mass to end buyers. Despite recognizing revenue on sales to Traxys, Li-Cycle is actually selling **through** Traxys, not to it.

> Sales of Li-Cycle products through Traxys are expected to represent the significant majority of Li-Cycle's revenues. When the Rochester Hub commences commercial production, Li-Cycle expects to generate approximately $300 million per year of revenue from the sale of Hub products to Traxys (based on existing assumptions regarding feedstock volumes and composition and commodity price estimates). Estimates of future revenues are based on commodity price assumptions for the metals contained in the applicable end products, and actual revenues will vary.

Source: Li-Cycle Public Filings

The arrangement works like this. Li-Cycle recycles batteries into black mass, which it ships almost immediately to Traxys. Traxys then attempts to sell the black mass to an end customer, who will further process the black mass into component materials, mainly Nickel and Cobalt. This can take up to 12 months. Although Li-Cycle books its revenue when the product is delivered to Traxys, this revenue is merely an ***estimation*** of the consideration for which Traxys will be able to receive upon the final sale of the product, contingent on commodity prices and the assay results from the test of the black mass by the end customer.

Not only is Traxys not the end buyer, but the revenue recognized by Li-Cycle is merely Li-Cycle's **initial estimate** of the price of the product it expects to receive from the end customer once the final deal is complete. Once Traxys sells the goods to an end customer, it passes through this revenue, ***minus costs and a marketing fee***, to Li-Cycle.



Source: Li-Cycle Public Filings

Traxys is a commodity broker, taking a marketing fee (e.g., a commission) on the sale of product from Li-Cycle to an end customer. Yet Li-Cycle recognizes revenue not when the final consideration is paid and the goods are received by the end customer, but upon delivery to Traxys, its broker.

While Traxys is attempting to sell the product, although it takes title to the goods and assumes collection risk, Traxys assumes virtually none of the other risk associated with selling the black mass – leaving Li-Cycle financially accountable for (1) commodity price changes, (2) damage or loss, (3) timing and interest rate risk, (4) insurance, and (5) non-compliant goods.

	Li-Cycle	TRAXYS
Title	X	✓
Commodity Price Risk	✓	X
Shipping Loss and Damage Risk	✓	X
Interest Rate Risk	✓	X
Collection Risk	X	✓
Freight and Shipping Expense	✓	X

Source: Blue Orca Diagram from information contained in Company Filings

This is likely why the contract between Traxys and Li-Cycle is not titled as a sales contract, but rather a *Marketing, Logistics and Working Capital Agreement*.

December 15, 2021

BETWEEN **Traxys North America LLC**
a limited liability company organized under the laws of the State of Delaware, U.S.A., with its main office and principal place of business at:
299 Park Avenue
New York, NY 10171
USA
Hereinafter called "**Buyer**" or "**Traxys**"

AND **Li-Cycle Americas Corp.**
a corporation organized under the laws of the Province of Ontario, Canada, with its main office and principal place of business at:
Suite 590, 207 Queen's Quay West
Toronto, Ontario M5J 1A7
Canada
Hereinafter called "**Seller**" or "**Li-Cycle**"

BLACK MASS – Amended and Restated Marketing, Logistics and Working Capital Agreement (the **"Agreement"**)

Source: Li-Cycle FY2021 20-F

In the interim period between revenue recognition and final sale to a real end customer, Traxys does not bear the risk of changing commodity prices or deficiencies in the product. Rather, once the end customer agrees to a price for the black mass, the consideration is paid through Traxys to Li-Cycle. Traxys receives what it describes in the contract as a **marketing fee**, equal to a percentage of the final payment by the end customer.

1.4 Traxys shall be paid a marketing fee ("**Marketing Fee**") equal to [XXX] of the Customer Final Price (as defined below).

Source: Li-Cycle FY2021 20-F

The contract makes clear that when the 'final payment' is made, Li-Cycle must make up any shortfall to Traxys. This is why the contract provides that the final payment may be made *either from Traxys to Li-Cycle or from Li-Cycle to Traxys*, because if the price obtained from the end customer falls well below the initial estimate, Li-Cycle is responsible for a **true up** payment to make up the shortfall.

1.3 **Final Payment**

The final payment shall be made, either way (namely, either by the Buyer to the Seller or by the Seller to the Buyer, as the case may be), upon all final pricing data and Transaction Costs being known, by telegraphic transfer upon presentation of the final invoice. The final payment shall be made on a quarterly basis, in line with each of Seller's fiscal quarters (currently, January 31st, April 30th, July 31st and October 31st).

Source: Li-Cycle FY2021 20-F

To review, Traxys is not the end customer, bears no commodity price risk with respect to the product, and receives what it describes as a marketing fee akin to a broker's commission upon final sale of the product to the actual end customer. Yet Li-Cycle recognizes revenues immediately upon delivery of the black mass to Traxys, even though the sale of the product to an end customer may not take place for months and may not be at a price provisionally estimated by Li-Cycle. This is why Li-Cycle's contract with Traxys is labelled as a marketing, logistics and financing agreement rather than a sales contract.

- **Traxys Is More of a Financier than a Customer**

One potential counter argument from the Company is that Traxys pays Li-Cycle for the product at the time title is transferred, potentially making the recognition of revenue at this point appropriate? We disagree, because even Traxys describes this as a working capital financing arrangement rather than a standard sales contract for payment for goods.

When Traxys takes title to the product, in return it pays Li-Cycle a certain percentage of the estimated value of the product up front.[6] **However, Traxys characterizes this payment as a loan**. According to the contract, until final consideration is paid by the end customer, any cash paid by Traxys to Li-Cycle is described in the contract as a "financial service" of a "**working capital facility**" which bears interest at a rate of the three-month SOFR.

1.3 Traxys shall provide the Seller with continuous transactional financing as per clause 8.1 for Material released and delivered EXW Seller's Works of the applicable Spoke (Incoterms 2020), until payments are received from the Customer. Such financial service shall constitute a Working Capital Facility for the Buyer and will be interest bearing for the Seller. The cost of the Working Capital Facility is the three-month SOFR, or any other mutually agreed replacement reference thereof, plus [XXX]. This shall be adjusted from time to time in line with Traxys' cost of capital, as agreed by Li-Cycle (acting reasonably). For the purposes of the foregoing, "**SOFR**" shall mean the rate equal to the secured overnight financing rate as administered by the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

Source: Li-Cycle FY2021 20-F

Traxys provides Li-Cycle with some cash at the time it receives the goods, but this is simply an interest-bearing loan. Essentially, Traxys is a secured lender providing working capital financing to Li-Cycle while it attempts to sell Li-Cycle's inventory to an end buyer.

- **Li-Cycle's Financials Contingent on Mark-To-Model Accounting**

Not only do we believe that it is inappropriate to recognize revenue on the initial delivery of goods to the Company's broker, but the provisional nature of the initial price estimate is ripe for abuse and reminiscent of Enron's mark-to-model accounting.

There are two problems with Li-Cycle's financial statements. First, they pull forward future sales that have not been completed into the current period, giving an impression of growth even though no end customer has purchased the product.

The second problem is that Li-Cycle recognizes revenue based on *its provisional estimate* of the value of the commodities, not the final sales price to an end customer. If the final consideration paid by the end customer differs from Li-Cycle's estimate, rather than recognizing the differences as other income, Li-Cycle simply makes a balance sheet adjustment to its accounts receivable and juices its revenue. This gives Li-Cycle considerable discretion over its revenues, including the discretion to increase revenues by marking up receivables on unsold black mass already delivered to its brokers and recognized as revenues in prior periods.

For those needing a refresher on Enron, the energy company's collapse was predicated on its abuse of mark-to-market accounting, which Jim Chanos referred to as 'mark-to-model' accounting. Enron had a practice of recognizing revenues and profits based on Enron's own self-serving estimates of the value of illiquid and hard-to-value energy contracts. Skilling and Fastow had enormous discretion over Enron's ability to manufacture fake profits and overstate revenues because there was typically no market price for the contracts and assets Enron was valuing. They abused such discretion to meet guidance and give the false appearance that Enron was growing and profitable, which forced

[6] In the initial contract, Traxys agreed to pay 75% of the estimate consideration up front but removed this disclosure from subsequent filings. The initial contract was included with Li-Cycle's amended F-4 here.

Fastow and his cohorts to engage in all manner of off-balance sheet transactions and financial chicanery to conceal the shortfall from such aggressive marks in later periods.

Li-Cycle's accounting, in our opinion, is reminiscent of this very accounting framework, as Li-Cycle's financial statements, including its revenues and profitability, are based on Li-Cycle's initial own estimates of the value of its product.

Although this initial price is tied to the commodity prices of the component materials in the black mass, the quality of the black mass is a determination initially made by Li-Cycle. This initial quality determination may not be vetted until months later (after revenue recognition), when the end customer conducts final testing of the black mass to determine whether the product contains the commodities in sufficient concentration and quality.

9 **WEIGHING, SAMPLING AND MOISTURE DETERMINATION**

1.1 Final weighing, sampling and assay determination shall be governed by the Customer Contract.

1.2 Buyer reserves the right to independently perform a provisional weighing, sampling and assay determination, prior to the first provisional payment.

Source: Li-Cycle FY2021 20-F

Should the price ultimately paid by the end customer fall short of Li-Cycle's estimate, Li-Cycle will not restate previously recognized revenues, but adjust the value of accounts receivable. If the size of the shortfall on the estimate exceeds the receivable balance, Traxys would then be entitled to claw back part of the working capital loan.

- **Gains on Markup of Receivables Flow through Revenues?**

But that is not all, as we believe that Li-Cycle's bizarre mark-to-model accounting framework allows the Company to juice its revenues with non-cash gains by upwardly revising previously recognized revenues in the current period.

Although Li-Cycle recognizes revenue immediately upon delivery of goods to its broker, it only receives part of the estimated consideration initially as an interest-bearing loan from Traxys. Li-Cycle categorizes the rest of the estimated consideration as a receivable.

These receivables have ballooned, with the balance of receivables equal to **134%** of revenues as of Q1 FY22.

$m	Q3FY21	Q4FY21	Q1FY22
Revenue from Traxys	0.8	3.0	2.3
Accounts receivable from Traxys	0.8	1.8	3.1
% of quarterly revenues	**93%**	**61%**	**134%**
Days of sales outstanding	**85**	**56**	**122**

Source: Li-Cycle Public Filings

The Company's ballooning receivables highlight not only the considerable lag between delivery of product to Traxys and final sales, but the material portion of revenues which have been recognized which are not yet sales to end customers.

Notably, Li-Cycle also recognizes non-cash gains on the **upward revision on the value of its receivables**, on the basis that Li-Cycle has increased its estimate of the value of product not yet sold to end customers.

Accounts receivable

	January 31, 2022	October 31, 2021
	$	$
Trade Receivables	5,815,394	4,072,701
Total accounts receivable	5,815,394	4,072,701
Harmonized Sales Taxes receivable	710,824	379,814
Other	—	593,331
Total other receivables	710,824	973,145

For product sales, the Company estimates the amount of consideration to which it expects to be entitled under provisional pricing arrangements. For the three months ended January 31, 2022, the fair value gain arising from changes in estimates was $1,738,469 (three months ended January 31, 2021: $275,503) included in the respective accounts receivable balance.

Source: Li-Cycle Consolidated Financial Statements Q1FY 2022

Li-Cycle admits in the footnotes to its financial statements that it recognized **$1.7 million in Q1 FY22** just from upward revisions of its *estimates of provisional consideration* for unsold black mass.

Normally, we would expect a non-cash gain from a revision on an asset to show up on the income statement below the line as 'other income.' But curiously, Li-Cycle reports no such line item. Indeed, of all the line items reported on income statement, the only one where a $1.7 million gain could fit is in **revenues**.

Li-Cycle Holdings Corp.

Condensed consolidated interim statements of comprehensive income and (loss)

Three months ended January 31, 2022 and 2021

(Unaudited - expressed in U.S. dollars)

		Notes	Three Months Ended January 31, 2022	2021
			$	$
Revenue	Gain on Receivables:			
Product sales	???		3,622,447	912,866
Recycling services			215,523	104,374
			3,837,970	1,017,240
Expenses				
Employee salaries and benefits			7,778,660	1,698,199
Professional fees			2,874,039	2,434,134
Share-based compensation		12	5,198,809	746,171
Raw materials and supplies			1,413,842	414,102
Office, administrative and travel			2,844,540	304,241
Depreciation		6, 7	1,834,075	527,378
Research and development			341,786	527,195
Freight and shipping			210,361	291,050
Plant facilities			437,070	214,134
Marketing			448,945	141,655
Change in Finished Goods Inventory			(811,434)	(77,632)
			22,570,693	7,220,627
Loss from operations			(18,732,723)	(6,203,387)
Other (income) expense				
Fair value (gain) loss on financial instruments	X	10, 11	(50,871,565)	—
Interest expense	X		3,741,242	250,689
Foreign exchange (gain) loss	X		(11,453)	391,964
Interest income	X		(137,587)	(717)
Net profit (loss) and comprehensive income (loss)			28,546,640	(6,845,323)

Source: Li-Cycle Consolidated Financial Statements Q1FY2022

Li-Cycle has some discretion to determine the value of its own revenues, given the provisional nature of the initial price estimate. According to the footnotes in its financial statements, it has been recognizing gains on accounts receivable by upwardly revising such estimates on unsold product. By elimination, we believe that such gains are actually being appended to Li-Cycle's top line revenues, which if true, would be absurd, especially considering that these gains accounted for 45% of reported total revenue in Q1 FY22.

$	FY20	FY21	Q1FY22
Revenue	792,254	7,374,876	3,837,970
Gain on accounts receivables	0	805,789	1,738,469
Markup %	**0%**	**11%**	**45%**

Source: Li-Cycle Public Filings

Given Li-Cycle's massive incentive to report growing revenues, and the compensation of the executive team tied to the stock price, this structure is plainly vulnerable to abuse.

- **CFO and Auditor Resignation**

We question whether such highly aggressive accounting treatments were related to the **resignations of Li-Cycle's CFO and auditor at the end of the last fiscal year**.

Bruce MacInnis, Li-Cycle's former CFO, joined the Company in 2018. Four months after Li-Cycle went public, MacInnis supposedly retired, and officially left the Company on January 31, 2022. The CFO was not the only notable resignation.

Deloitte had served as Li-Cycle's auditor since 2019 and spent three years working with the Company through its DeSPAC and public listing. Usually, we would expect Deloitte continue working with the Company after all the efforts to gain a public company client. Yet as soon as Li-Cycle's first annual report was out, Deloitte resigned.

In any circumstances, the resignation of the CFO and auditor around the same time would raise major investor alarm bells. In this case, such fears are only compounded by Li-Cycle's questionable accounting, which we believe has the potential to create a highly misleading picture of the Company's financial positions.

4. Li-Cycle Likely Requires $1 Billion in Near Term Capital

A 2021 SPAC, Li-Cycle claims to have developed proprietary technology for recycling lithium-ion batteries through a hub-and-spoke model, eventually with the aim of creating a closed-loop supply chain for battery materials. At its spoke facilities (currently in Kingston, Ontario and Rochester, NY), the Company recycles lithium-ion batteries into an end product called '**black mass**,' comprised of materials such as nickel, cobalt, and small amounts of lithium. This recycled black mass is then sold to third parties, who break it down for use in electronics and batteries. Li-Cycle has told investors that once it opens its 'hub' facilities, it will convert black mass into component materials which it will then sell directly to the market.

Following its de-SPAC, costs and anticipated capital expenditures have risen sharply. Morgan Stanley estimated in recent note downgrading the stock that cost and capital expense overruns increased its estimate of the Company's FCF burn (2022-2026) from $643 million to ~$1.85 billion, a **3x increase**.[7] As a result, analysts estimate that Li-Cycle burns cash so much more rapidly than it initially told investors, it will need to raise $1 billion in additional capital, likely in the form of debt and dilutive equity issuances.

We agree. By our calculation, Li-Cycle's stated capital investments will require the Company to raise at least $1 billion – **102% of its current enterprise value** – likely through debt and dilutive equity issuances.[8] This is fatal to the bull case for the stock: even if investors ignore Li-Cycle's nightmarish corporate governance, questionable accounting, and negative margins, they will likely be so badly diluted that even if they win, they lose.

- **$1 Billion Cash Hole**

In its prospectus, Li-Cycle laid out an ambitious capital expenditure program to build out 100,000 tonnes per annum ("tpa") of lithium-ion battery equivalent ("LIB") processing capacity per year from 20 spokes and 220,000-240,000 tpa of LIB through 4 hubs. These facilities are to be built across Europe, Asia Pacific, and North America by 2025.

Li-Cycle initially projected their Rochester hub to cost $175 million with a nameplate capacity of 60,000 tpa of LIB.

> Li-Cycle's first revenue-generating Hub will be located in Rochester, New York, and is currently in late stage development. Based on current scopes of work and engineering studies, the Rochester Hub would require an estimated investment of approximately $175 million. Pending the approval of local and environmental permits, construction of the Hub would begin in late 2021, with the start of operations commencing in early 2023. The Rochester Hub is expected to result in the creation of approximately 120 new jobs. The location of the Rochester Hub was specifically selected due to the nature of the infrastructure available at the site, including utilities, logistics, and other physical infrastructure. The Rochester Hub is expected to have the capacity to process 25,000 tonnes of black mass annually (equivalent to approximately 60,000 tonnes of lithium-ion battery feed equivalent annually).

Source: Li-Cycle F-4, March 2021

Li-Cycle has since increased the planned nameplate capacity to 90,000 tpa of LIB or by 1.4x, citing increased demand as a driving factor. Yet in its investor presentation in December 2021, the Company projected their new expected capital expenditure for this hub to be $485 million, or 2.8x their previous expectations.

Project & Location	▪ North America Hub 1 ▪ Rochester, New York, USA
Process Technology	▪ IP Protected Hydrometallurgical (Non-Pyro)
Capacity	▪ **Input capacity upsized by 40%** to a nameplate capacity of 35,000 t/y of black mass (equivalent to 90,000 t/y LIB)
Investment	▪ Planned Capital Investment of $485 million +/- 15%, based on completion of the Definitive Feasibility Study
Project Returns	▪ Expected to deliver highly accretive returns, based on IRR, NPV, DCF (with higher capital investment)
Funding	▪ Fully funded by balance sheet cash

Source: Li-Cycle Investor Presentation December 2021

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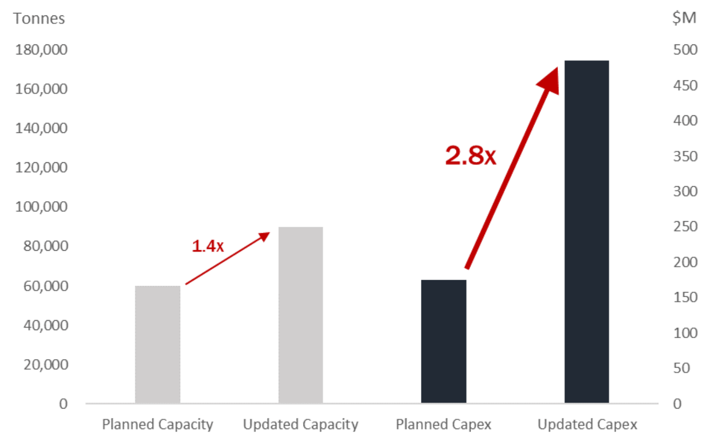
[7] Morgan Stanley Report, February 10, 2022
[8] As of March 23, 2022

Hub Outsized Capital Expense Increases



Source: Li-Cycle Public Filings

The updated plans indicate that Li-Cycle's hub building costs have soared from nearly $3 million per tpa of LIB to around $5 million per tpa of LIB. This near doubling of their costs is highly concerning. Li-Cycle has planned to build out 220,000 tpa of LIB in hub capacity by 2025, implying they will need at least two more hubs in the next three years after their Rochester Hub is completed.[9] The increased expenditure rate suggests they will have to spend an **additional $544 million over their initial plans**.

	TPA of LIB (thousands)	Planned Capital Expenditure (millions)	Millions of CapEx per thousand TPA of LIB
Initial Rochester Hub Plan	60	175	3
Updated Rochester Hub Plan	90	485	5
Total Hub Capital Plan at Initial Cost	220	642	3
Total Hub Capital Plan at Updated Cost	220	1186	5
Increase in Planned Capex		**544**	

Source: Li-Cycle F-4, March 2021, Li-Cycle Investor Presentation December 2021 & Blue Orca Calculations

Because of the spiraling costs of hub construction, we calculate that Li-Cycle's will require a total of $1.2 billion to build its announced hub capacities.

Est. Capex Required for Hubs	$M
Updated Capex for Rochester Hub	485
Updated Rochester Hub capacity (tpa)	90,000
Hub capex per tpa	0.005
Li-Cycle announced total hub capacity	220,000
Est. Capex Required for Hubs	1,186
Capital Expenditures Spent on Rochester Hub	28
Est. Remaining Capex Needed for Hubs	1,157

Source: Li-Cycle Public Filings

Hub construction is the majority of Li-Cycles near term capital expenditure plan, but the Company also intends to build out spoke processing capacity to 100,000 tpa of LIB by 2025. The company has completed two spokes and

[9] Li-Cycle has a total planned capacity of 220,000 tpa of LIB and has announced one project accounting for 90,000 tpa of LIB. At a plant capacity of 90,000 tpa of LIB, Li-Cycle will need two more to produce the additional 130,000.

begun on five more for a total capacity of 65,000 tpa of LIB. With current project nameplate capacities of 10,000 tpa of LIB, this leaves at least 3 more projects to be commenced.

Spoke Development Pipeline Progressing Towards 2025 Target

Legend: Americas / EMEA	Spoke Expansion Pipeline	
	Spoke Location	**Capacity** (tonnes of lithium-ion battery input/year)
Operational	Kingston, ON	5,000
	Rochester, NY	5,000
In Construction and Development	Gilbert, AZ	10,000
	Tuscaloosa, AL	10,000
	Warren, OH	15,000
	Norway	10,000
	Germany	10,000
Total		**65,000**

Source: Li-Cycle Q4 Investor Presentation January 2022

In their most recent filling, Li-Cycle disclosed the total cost of the five spokes under construction to be $50 million, or around $10 million a spoke. They also disclosed that the five under construction had a remaining cost of $34 million, implying a total remaining capital cost of $66 million for the spokes.[10]

Capital Costs of the Spoke Capital Projects

We expect our total investment to construct, commission and commence operations for the Spoke Capital Projects to be approximately $50.0 million. As of January 31, 2022, we have spent approximately $15.8 million on detailed engineering, equipment procurement and facility-related expenditures in connection with the Spoke Capital Projects.

Source: Li-Cycle Q1FY22 Management's Discussion and Analysis

Est. Capex Required for Spokes	$M
Reported Capex required for 5 spokes	50
The 5 spokes' capacity (tpa)	55,000
Spoke capex per tpa	0.0009
Spoke capacity needs to be built	90,000
Capex Required for Spokes	82
Capital Expenditures Spent on 5 Spokes	16
Est. Remaining Capex Needed for Spokes	66

Source: Li-Cycle Public Filings

Based on their stated capacity goals, we estimate that Li-Cycle will have to fund ~$1.2 billion of capital expenditures in the near term.

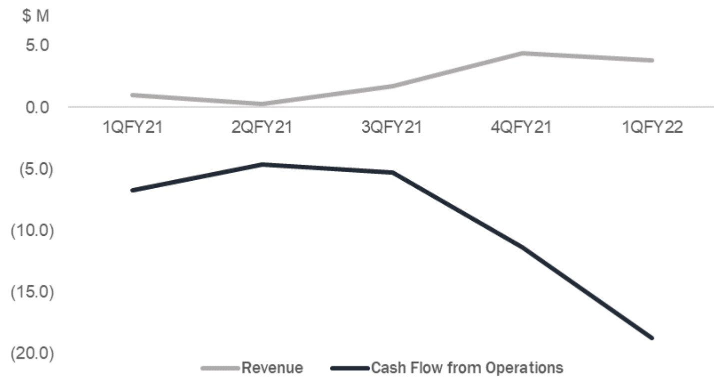
Est. Capex Required for Hubs and Spokes	$M
Est. Capex Required for Hubs	1,157
Est. Remaining Capex Needed for Spokes	66
Est. Capex Required for Hubs and Spokes	**1,223**

Source: Li-Cycle Public Filings

[10] $34 million remain for the 5 spokes under construction, and the 2025 plans require at least 3 more similar sized spokes at around $10 million each, for a total of $66 million.

This is a lofty task for any company Li-Cycle's size, let alone one that burns so much cash just operating its business.

Li-Cycle's Negative Scale to Cash Generation



Source: Li-Cycle Public Filings

Given Li-Cycle's spiraling costs and negative margins, we believe the more capacity the Company operates, the more money it burns. We estimate that Li-Cycle will burn $358 million to run its operations over the next three years.[11] We feel this number is a conservative estimate given Li-Cycle's negative scale to cash generation and the likelihood that its hub will be equally as un-profitable. Assuming this cash burn rate, we calculate that Li-Cycle will need to raise an **additional $1 billion**.

$M	
Est. Capex Required for Hubs and Spokes	1,223
Est. OCF burn FY22-FY24	358
Est. Maintenance Capex	28
Est. cash needed by Li-Cycle by FY24	1,608
Cash on hand as of Q1FY22	552
Investment from LG	50
Li-Cycle's cash	602
Est. cash needed to be raised from the capital market	**(1,006)**

Source: Blue Orca Calculations[12]

Li-Cycle's poorly controlled capital planning coupled with its poor economics have led to ballooning capital costs and a substantial near term funding gap. We calculate that Li-Cycle will require an additional $1 billion of funding over the next three years, **representing 102% of its $987 million enterprise value**. We think that dilutive equity issuances are likely Li-Cycle's only choice for most, if not all, of this funding.

This is simply fatal to the bull case for the stock: even if investors ignore Li-Cycle's nightmarish corporate governance, accounting red flags and negative margins, they will likely be so badly diluted that even if they win, they lose.

[11] In LTMQ1FY22, Li-Cycle's spoke produced 2,340 tonnes of black mass, and the Company burned $39.9 million in its operating activities. That means when Li-Cycle produced 1 tonne of black mass at its spoke, it lost $17,032. The Company stated that the target black mass production volume is 6,500 to 7,500 tonnes in FY2022. We estimated the target production is 7,000 tonnes from FY2022 and FY2024.

[12] Our calculation also includes Maintenance Capex. In its prospectus, Li-Cycle disclosed "ongoing sustaining capital" requirements of 2% and 17% of mechanical equipment capex for its hub and spoke facilities respectively. We estimated Li-Cycle spent $10 million to build its Kingston spoke and Rochester spoke, and that mechanical equipment capex is 70% of total Capex.

5. Hiding Negative Gross Margins

Li-Cycle does not disclose gross margins on its income statement, omitting cost of goods sold and including most costs under a nebulous expense category. This is an unusual decision for a business which essentially engages in manufacturing and product sales. Using this tortured treatment, Li-Cycle is able to obscure its financial results. Yet when we analyze the footnotes to the financial statements, we calculate that the **Company's gross margins are likely negative since inception**, indicating that Li-Cycle's recycling business is neither scalable nor economically viable.

Notably for a manufacturing and commodity business that styles itself as an 'urban miner,' Li-Cycle's income statement is presented in a highly unusual format under which it refuses to report gross profits or cost of goods sold.

Li-Cycle Holdings Corp.
Consolidated statements of loss and comprehensive loss
Years ended October 31, 2021, 2020, and 2019
(Expressed in U.S. dollars)

		Year ended October 31,		
		2021	2020	2019
	Notes	**$**	$	$
Revenue				
Product sales		**6,930,475**	554,914	–
Recycling services		**444,401**	237,340	48,160
		7,374,876	792,254	48,160
Expenses				
Employee salaries and benefits, net		**12,709,823**	2,819,195	607,820
Professional fees		**7,688,520**	2,962,261	546,647
Share-based compensation	12	**3,982,943**	332,634	97,258
Raw materials and supplies		**3,410,014**	591,881	–

Source: Li-Cycle FY2021 20-F

Presented in this format, Li-Cycle seems to imply healthy gross margins. For example, in FY21, Li-Cycle reported raw materials and supply expenses of $3.1 million.[13] When compared to its revenues of $7 million, this seems to imply an impressive gross margin of 55% in FY21. In the latest quarter, the Company's implied gross margin grew to 83%.

Li-Cycle's Implied Gross Margin

$m	FY20	FY21	Q1FY22	Cumulative
Product sales revenue	0.55	6.93	3.62	11.11
(-) Raw materials and supplies	(0.59)	(3.41)	(1.41)	(5.42)
(-) Changes in finished good inventory	0.01	0.31	0.81	1.13
Implied Gross Profit	(0.02)	3.83	3.02	6.83
Implied Gross Margin	**-4%**	**55%**	**83%**	**61%**

Source: Company Filings

However, in the footnotes to its financial statements, Li-Cycle reports that its cost of inventories recognized as expenses were $8.55 million in FY21. These inventory expenses ***exceeded reported revenues*** that year and were well above the amount that the Company reported on its income statement as raw material and supply expenses in FY 21.

The cost of inventories recognized as an expense during the twelve months ended October 31, 2021 was $8.55 million (twelve months ended October 31, 2020: $0.82 million).

Source: Li-Cycle FY2021 20-F

If we consider these expenses buried in the footnotes, we calculate that Li-Cycle's gross margins were -48% in FY20 and -23% in FY21. If we aggregate the Company's financials since FY 2020 (effectively inception), Li-Cycle's costs of inventories have exceeded revenues, indicating that its gross margins on battery recycling are likely negative.

[13] We included raw materials and supplies and changes in finished good inventory.

Li-Cycle Apparently Generated Gross Losses

$m	FY20	Q1FY21	Q2FY21	Q3FY21	Q4FY21	Q1FY22	Cumulative
Product Sales Revenue	0.55	0.91	0.18	1.59	4.25	3.62	11.11
(-) Inventory expense	(0.82)	(1.18)	(1.31)	(2.16)	(3.90)	(2.45)	(11.82)
Gross (Loss) Profit	(0.27)	(0.27)	(1.13)	(0.56)	0.35	1.18	(0.71)
Gross Margin	**-48%**	**-29%**	**-643%**	**-35%**	**8%**	**32%**	**-6%**

Source: Li-Cycle Public Filings

Skeptical investors may argue that Li-Cycle's gross margins, even under our calculation, have improved and turned positive in the last two quarters. We disagree, because as we discussed in the previous section, we calculate that 45% of Li-Cycle's revenues in the last quarter were from the upward revaluation on receivables for product which has yet to be sold to end customers. The effect of such receivable markups, run through revenue rather than broken out separately in other income or below operating profit, makes it impossible to determine whether the profits reported in Q1 FY22 were due to revaluation gains or the underlying profitability of the battery recycling. Yet even considering the last two quarters, on the aggregate over the past nine quarters, Li-Cycle's gross margins have been negative.

Not only do negative margins contradict the Company's disclosures in its SPAC presentations regarding the profitability of its business but suggest that Li-Cycle's business is neither scalable nor economically viable. Yet because of the way Li-Cycle obfuscates its income statement, this is hidden from investors who may be forgiven for ignoring key disclosures buried in the footnotes.[14]

Additional evidence to indicate that Li-Cycle's gross margins are negative can be found in the Company's inventory write downs, which Li-Cycle includes in its footnoted cost of inventories. These write-downs were significant in FY21 at a total of $2.87 million.[15]

> The cost of inventories recognized as an expense during the twelve months ended October 31, 2021 includes a write down of $2,316,936 for finished goods and write down of $552,429 for raw materials (twelve months ended October 31, 2020: $4,360 for finished goods and $53,764 for raw materials) in respect of adjustments of inventory to net realizable value. Net realizable value of inventory is calculated as the estimated consideration under provisional pricing arrangements less the estimated cost of completion and the estimated costs necessary to make the sale.

Source: Li-Cycle FY2021 20-F

According to its disclosed off-take agreement, Li-Cycle only holds finished goods on its balance sheet for two weeks.[16] Therefore, we suspect that the write-downs are not driven by falling commodity prices (which were rising during this period). Rather, we believe the write-downs are taken immediately upon shipment to Traxys because even the estimated provisional consideration is substantially lower than cost.

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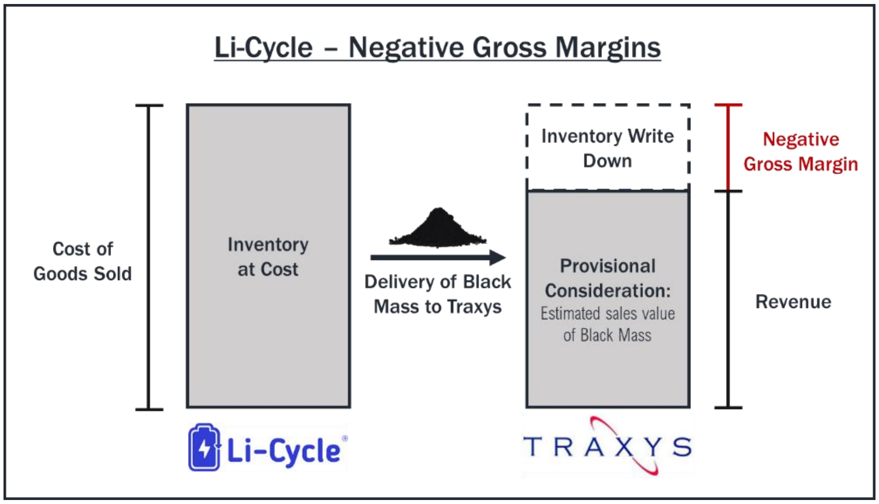
[14] We would expect that raw material costs represent a significant portion of the cost of inventories, but it was only 36% in FY 2021. We believe that the Company buries the remaining cost of inventories in other expense categories.

[15] Li-Cycle states that inventory is measured at the lower of cost or net realizable value (NRV). NRV is calculated as the estimated consideration under provisional pricing arrangements less the estimated cost of completion and the estimated costs necessary to make the sale.

[16] Amended and Restated Black Mass Marketing, Logistics and Working Capital Agreement between Li-Cycle and Traxys, p. 8



Source: Blue Orca Analysis of Li-Cycle Financial Statements

As these write-downs are not one-time losses, they should not be excluded from the calculation of the Company's profitability. Looking at these write-downs over time shows them increasing as Li-Cycle claimed to produce more black mass.

Li-Cycle's Inventory Write-Downs Increase along with its Production

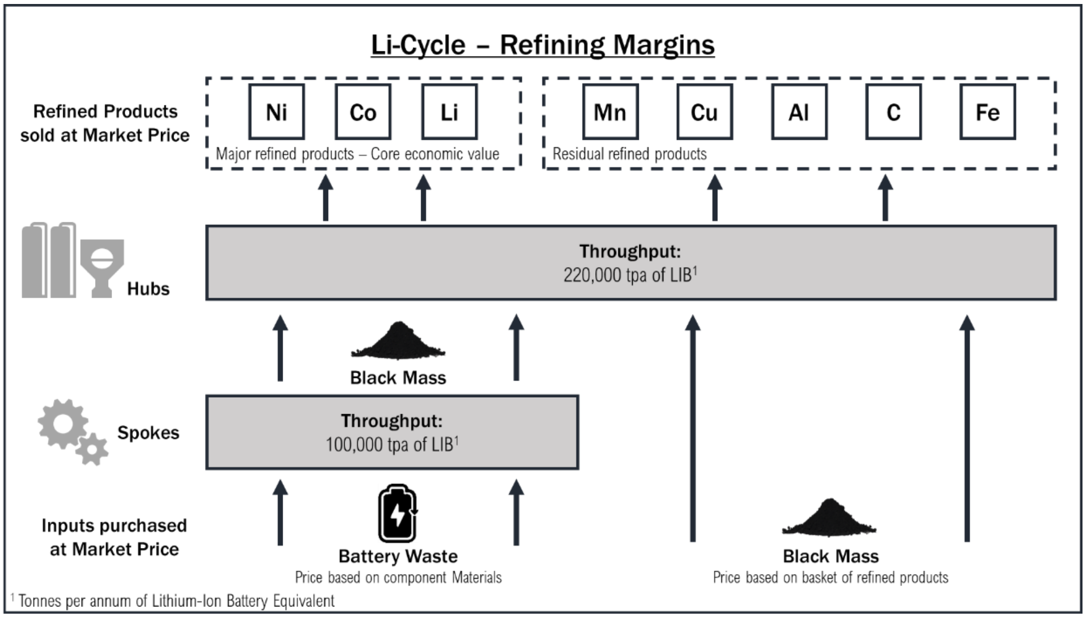
USD	FY20	FY21	Q1FY22
Black mass production (tonnes)	226	1,880	699
Cost of inventories	820,000	8,550,000	2,446,381
Write-dow n			
Raw Materials	53,764	552,429	285,495
Finished Goods	4,360	2,316,936	375,022
Total w rite-dow n of inventories	58,124	2,869,365	660,517
% of write-down as of cost of inventories	*7%*	*34%*	*27%*

Source: *Li-Cycle FY2021 20-F, Quarterly Financials Q1FY22*

As we discussed in the previous section, we think Li-Cycle has some discretion to determine the amount of revenue it recognizes. Yet even at the initial consideration provisionally estimated by Li-Cycle, such instant inventory write-downs further indicate that Li-Cycle's gross margins are negative.

Nor will rising commodity prices provide any long-term relief to such chronic unprofitability. Li-Cycle tells investors to think of the Company as an 'urban miner,' but a refiner is a better analogy. Refineries do not benefit from commodity increases in the long run: the costs of their inputs are directly correlated with the price of their outputs, leaving the business only a well-defined margin to capture regardless of commodity price.

According to projections from Li-Cycle's Q4 presentation, the Company's business will have two primary inputs – black mass (55%) and battery waste (45%) – and a basket of outputs.



Source: Blue Orca Diagram from information contained in Li-Cycle's Q4 Investor Presentation

Black mass is priced relative to its refined products. We can see this in Li-Cycle's own black mass offtake agreement, discussed above. But what about the battery waste? There is no reason to believe that it will be priced any differently. As prices for the input materials go up, so will battery prices, increasing the cost of used batteries and battery waste as well. The result is a market where battery waste is priced relative to its ultimate refined products.

Li-Cycle is currently operating at a staggering loss[17] in an industry where costs are excruciatingly important. Their marketing might have you believe they will see a windfall from demand gains driven by EV adoption. This is simply not the case. There is no path to profitability for Li-Cycle outside of improved cost management, a metric on which they are currently underperforming, evidenced not only in their lack of profits, but also in their negative gross margins since inception.

By not reporting a proper income statement, we think that Li-Cycle gives investors the misleading impression that at least its business is profitable on a gross basis. But based on our read of the footnotes, we think that Li-Cycle's gross margins are likely **negative**, indicating that Li-Cycle's recycling business is neither scalable nor economically viable.

[17] Li-Cycle reported a profit of $28 million in Q1FY22. However, this was solely attributable to a $51 million gain on financial instrument liabilities driven by their depressed share price. They have not recorded profits in any other periods.

6. Blood Diamonds and ESG

Li-Cycle's purported commitment to ESG is central to its narrative, a commitment which we believe is more of a marketing ploy than a guiding tenet. Li-Cycle's advisor, major shareholder and company consultant owned a Tanzanian diamond mine which has been accused of appalling human rights abuses. We question how ESG investors will feel about the ESG credentials of a company with close ties to a group accused of profiting from blood diamonds.

Li-Cycle's reported that it engaged Atria Limited ("Atria") to provide undefined business development and marketing consulting services. In January 2021, shortly before it went public, Li-Cycle awarded Atria 12,000 shares for alleged consulting services – 2,000 of which were then kicked back by Atria to an unnamed director of Li-Cycle.

Consulting Agreement

On May 1, 2020, Li-Cycle entered into a consulting agreement with Atria Limited ("Atria"), an entity which beneficially owned more than 5% of the outstanding Li-Cycle Corp. Shares at that time, to agree upon and finalize the consideration for certain business development and marketing consulting services that were previously performed on behalf of Li-Cycle from 2018 through April 2020. The fees for such services were agreed at 12,000 common shares of Li-Cycle Corp., payable in installments of 1,000 shares per month. On January 25, 2021, Li-Cycle issued all of the 12,000 shares to Atria as full and final satisfaction of all obligations of Li-Cycle to Atria under the consulting agreement. Atria also directed the issuance of such shares as follows: 8,000 Shares to Atria; 2,000 Shares to Pella Ventures (an affiliated company of Atria); and 2,000 Shares to a director of Li-Cycle Corp. at the time, who is not related to Atria.

Source: Li-Cycle F-1, September 29, 2021

Interestingly, Li-Cycle changed the language from its previous disclosure regarding the transaction from an F-4 published in March 2021. In the initial disclosure, Li-Cycle hid the 2,000-share kickback to its director and only disclosed the 10,000 shares to Atria in the January 2021 transaction.

Consulting Agreement

On May 1, 2020, the Company entered into a consulting agreement with Atria Limited, a beneficial owner of more than 5% of the outstanding Li-Cycle shares at that time, for certain business development consulting services. with fees payable in Li-Cycle shares at a rate of 1,000 Li-Cycle shares per month, to a maximum of 12,000 Li-Cycle shares. On January 25, 2021, Li-Cycle and Atria Limited entered into a letter agreement providing for the termination of the consulting agreement and the issuance and delivery to Atria Limited of 10,000 Li-Cycle shares as full and final satisfaction of all obligations and liabilities of Li-Cycle to Atria Limited under the consulting agreement.

Source: Li-Cycle F-4, March 29, 2021

The failure to disclose material terms is reminiscent of Desert Lion, which is ironic considering the connections between Atria and Johnston's former failed Lithium mining venture. Atria was formed in Guernsey in March 2018, and it has no identifiable website or other online presence.

Register	Guernsey Registered Company		
Company Reg Number	64750		
Company Name	Atria Limited		
Alternative Name	N/A		
Company Type	Non Cellular Company		
Company Classification	Category 5 – CSP administered companies (inc. RA and/or reg office)		
Company Status	Normal (as at 01 March 2018)		
Registered Office Address	St. Martin's House Le Bordage St. Peter Port GUERNSEY GY1 4JE		
Economic Activity Type	Passive equity holding company (excluding intellectual property, real estate and transport) carrying on no significant trading activity or management or shareholder control of another entity (10.5.2)		
Liability Type	Limited by Shares	Waive AGMs?	Yes
Company Registered Date	01 March 2018	Audit Exempt Annual?	No
Resident Agent Exempt?	No	Audit Exempt Indefinite?	Yes

Source: Guernsey Registry

Digging deeper, Atria is an affiliate of Pella Ventures. Of the 10,000 shares awarded to Atria, 2,000 were then transferred to Pella Ventures. Pella Ventures used to be a shareholder of Desert Lion and is controlled by Adonis

Pouroulis. Pouroulis founded Petra Diamonds (LSE: PDL), which non-profit human rights groups have accused of appalling human rights abuses at its mine in Tanzania.

ANALYSIS | August 24, 2021 | updated 22 Feb 2022 5:14am

Shattered people, shattered reputation: inside the Petra Diamonds human rights abuses

Petra Diamonds has had its reputation as an ethical miner broken by a lawsuit showing human rights abuses at its Williamson mine.

By JP Casey

Source: Mining Technology Magazine

In 2021, Petra Diamonds paid millions in fines related to its violation of human rights in Tanzania. After a shareholder proposal to remove him, Pouroulis stepped down.

Petra Diamonds bows to pressure on human rights abuses at Tanzanian mine

By RAID - May 12, 2021

UK-listed company, Petra Diamonds, today bowed to pressure and agreed to settle the claims of 71 Tanzanian nationals who suffered human rights abuses at its Williamson Mine in Tanzania, paying a total of £4.3 million in a wide-ranging compensation package. It follows years of efforts by local residents and activists to end the abusive practices. A further 25 claims are being investigated as part of the settlement, which could increase the total payout.

Source: Petra Diamonds bows to pressure on human rights abuses at Tanzanian mine | Raid (raid-uk.org)

Watchdog groups have accused Petra Diamonds of human rights abuses. Our diligence has uncovered longstanding, close connections between him and Johnston, as they were chairman and CEO, respectively, of the ill-fated Desert Lion which collapsed on the TSXV exchange and resulted in Johnston's sanction by Canadian authorities.

Pouroulis was also an early member of Li-Cycle's Advisory Board, although he has since been removed. In addition, he (or entities connected to him) owned 5% of Li-Cycle and received 10,000 shares for nebulous 'consulting' services. We wonder if many ESG funds who invested in Li-Cycle would reconsider the ESG credentials of a company which appears to have close ties with and made substantial share payments to a group accused by activists of mining blood diamonds. That a Li-Cycle director received a kick-back of shares from this transaction is the proverbial cherry on top of a corporate governance mess, one which we think undermines Li-Cycle purported ESG credentials.

In our opinion, Li-Cycle is a fatal combination between awful corporate governance, faulty accounting, and a broken business model which is not economically viable.

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